

## CLAIMS

What is claimed is:

1. A mask comprising:  
a translucent substrate;  
one or more three-dimensional features comprising one or more vertical sidewalls; and  
an absorbing material deposited upon one or more of the vertical sidewalls.
2. The mask of claim 1, the translucent substrate comprising silicon dioxide.
3. The mask of claim 1, the translucent substrate being quartz.
4. The mask of claim 1, the absorbing material comprising SiON.
5. The mask of claim 1, the absorbing material comprising Si – rich nitride.
6. The mask of claim 1, the absorbing material comprising Si – rich oxide.
7. The mask of claim 1, the absorbing material comprising SiOCN.
8. The mask of claim 1, the absorbing material comprising TiN.
9. A method of making a mask comprising:  
producing one or more features comprising one or more vertical sidewalls on a surface of a translucent substrate;  
depositing an absorbing material upon the surface of the translucent substrate;  
and  
removing the absorbing material from all portions of the surface of the substrate except for one or more of the vertical sidewalls.
10. The method of claim 9, the depositing step accomplished through chemical vapor deposition.

11. The method of claim 10, the absorbing material comprising SiON.
12. The method of claim 10, the absorbing material comprising Si – rich nitride.
13. The method of claim 10, the absorbing material comprising Si – rich oxide.
14. The method of claim 10, the absorbing material comprising SiOC.
15. The method of claim 10, the absorbing material comprising SiOCN.
16. The method of claim 10, the absorbing material comprising TiN.
17. The method of claim 9, the depositing step accomplished through physical vapor deposition.
18. The method of claim 17, the absorbing material comprising TiN.
19. The method of claim 9, the removing step accomplished by etching.
20. A method of producing relatively small features in a substrate during nanoprnt lithography comprising:
  - producing one or more features comprising one or more vertical sidewalls on a surface of a translucent first substrate;
  - depositing an absorbing material upon the surface of the first substrate;
  - removing the absorbing material from all portions of the surface of the first substrate except for one or more of the vertical sidewalls;
  - placing the first substrate in close proximity to a second substrate comprising a layer of resist;
  - exposing the layer of resist of the second substrate to ultraviolet light passing through the first substrate; and
  - removing the unexposed areas of the layer of resist.

21. The method of claim 20, the placing step bringing the first substrate into contact with the resist layer of the second substrate.
22. The method of claim 20, the placing step bringing the first substrate into contact with and applying a low pressure upon the resist layer of the second substrate.
23. The method of claim 20, the second removing step being to remove exposed areas of the layer of resist.